Billard Laboratory of Learning Algorithms and Systems

PhD Position in Machine Learning applied to Shared Control of Prosthesis via Brain-Machine Interfaces

This position is part of a collaboration between the LASA laboratory led by Prof. A. Billard and the CNBI laboratory led by Prof. J. Millan. The PhD candidate will develop algorithms based on inverse reinforcement learning to enable decoding of the objective function optimized by humans during natural reach and grasp motion. This decoding will support the control of a robotic hand and arm prosthesis. Information will be based on measurement of error potential from EEG data. The challenge will be to perform this detection on-line and to adapt it to the specific user. The PhD student must have a background in machine learning and in neuroscience. S/he must be proficient in programming. More information can be found on the LASA and CNBI websites: http://lasa.epfl.ch ; http://cnbi.epfl.ch
Interested candidates can contact aude.billard@epfl.ch